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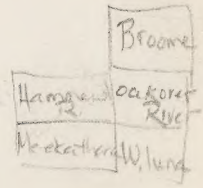

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* Scientist in Charge
Volcano Observatory.

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Hammersley Range
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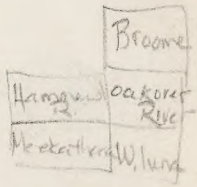

Record of Trip to Australia
The East Indies and Transpacific
Points. May 16 — June 30 1968

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T. Western Australian Gov't Tourist Bureau
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Chert in the young Sand. North

Wilson, A.W.F., W. Compston, E.W. Jeffery + G.H. Riley "Radiometric Ages from Pre-Cambrian rocks in Australia," J. Geol. Soc. Aust. 6: 179–195 1960.
Map of more [illegible]

Richards, J.R., H. Berry, + J.H. [illegible]
"Isotopic and Lead-Alpha Ages of Some Australian Zircons"
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Rocks + Ranges [illegible] W Aust.
[illegible] (Correction) 2900 M – 2900 M

May 16 Acapulco, Mexico

Arose about 5:30 AM after about 5 hours sleep. Dee drove to airport. Arrived about 7:30 & checked in unit case to Acapulco. Weather clear and quite warm in Boston area. Clouded over shortly after leaving. Quite choppy about half way to Chicago, heavy overcast there (There were tornados yesterday afternoon in Chicago area & to S. & west). Arrived behind schedule and left behind schedule. Weather excellent clear to Mexico City, where arrived at 2:30 local time = 4:30 Eastern Daylight). Same plane on to Acapulco - only 25 minutes flying time from Mexico City. Very interesting geology, terrain and extraordinary cloud development over the mountains. Arrived Acapulco about 3:30. No Baggage. What now? The same plane that left Boston arrived here - no change of planes. And I saw the bag on the luggage belt going past the ticket counter in Boston!

Maner Airlines flight 57

Cab to Villa Vera (12 pesos). This is a beautiful spot & excellent room - much too big. Has refrigerator, & area large enough for a cocktail party. Went into centro (about 4 miles or more) and bought a shirt, socks & handkerchiefs (163.50 pesos) The city of

Acapulco is strung out along an extraordinary deep embayment of the Pacific coast. This is a humid, but not excessive by tropical climate. Vegetation is semi-desert and land usage very limited owing both to aridity and slope. Along the coastal lowland to south & east of the hills of Acapulco are miles of copra plantations - reminds one of Ceylon - but trees are quite young and many new plantations evident. Around Acapulco back from the coast reminiscent of southern California in vegetation & topography but much more tropical when & where irrigated. The down town area of the city looks just like the typical Latin American city where Spanish culture set the pattern over 400 years ago.

May 17 - Hotel Villa Vera, Acapulco.

No baggage yet. This is a nightmare situation. Shall I go back to Boston or go on? Have little interest in sightseeing here in view of situation.

[redacted]

Rosalinda

May 18 Left Villa Vera at 10 tonight for airport. Baggage finally arrived about 5 AM - was located in Atlanta Georgia! Mr Lopez reimbursed me 304 pesos for clothing.

Quantas flight for Papeete left shortly after midnight - 7 hours & 30 minutes flying time to Tahiti - Arrived Papeete at 4:30 AM local time - no flight to Bora Bora until 2:30 PM the 19th - Went to Matavai Hotel & to bed. No gassing of baggage!

6 PM - Bora Bora 5/19/68

May 19 Awoke this AM about 10:30. The Matavai looks exactly the same. Had breakfast (omelette - 180 F!) Talked with a fellow guest from Australia. Plane to Bora Bora at 2:30. Landed one stop enroute - 140 miles to Bora Bora. There were 6 Americans all bound to the Hotel Bora Bora. I decided to go back on the launch to the Noa Noa. The Polynesian girl Joanna who was in charge of passengers on the launch took me on her motor scooter to the Noa Noa. When arrived the place all

22 The Hotel Bora Bora is "owned" by Americans – San Francisco capital

closed up, but assistant manager found a key + put me in room # 24. The cook disappeared and there are no lights. I am writing this by candlelight at 7 PM – There is absolutely no one around and it is absolutely black outdoors – mild drizzle. No food, no light + no one around. Probably best to go to bed. Am very hungry. Asst manager said dinner would be between 730 + 9, but the kitchen + dining room across to road are both locked and completely dark. When my candle burns out I will be complete blackness. What to do? Have never been in such a situation.

Later — 10:30 PM

At 7:45 decided to do something about this situation. By using the Mexican wax matches I was able to get out to the road (the candle I was left was about 2/3 gone + no other on hand) and walked to front of a thatched hut + called for help – in French. presently 2 Polynesian women came out of the house and gave me matches and offered me pain (bread). They seemed quite con-

cerned about the situation and told me the hotel was ferme – Dimanche. At about 10 minutes to 8 a motor scooter came into sight coming from the north. I waved & it stopped about 100 feet or more down the road. The driver was a young well built Polynesian who spoke no English. Was able to communicate my problem and he turned around & drove clear up to my room door. Meanwhile the woman who had offered me the bed came up & helped me get my bags out & loaded on the scooter. I sat behind holding on to Antonio's shoulders. We stopped at a small "Pension", but I figured I would never be able to get out tomorrow on time for the return flight to Papeete – so asked Antonio if he could take me to the Hotel Bora Bora – seven kilometers south. He did – a strange ride along the sand road through endless coco nut plantations. Arrived at the Hotel Bora Bora at 8:10 – Finis to a weird adventure.

This is a beautiful Jet Set place – $35.00 per day (includes meals but not drinks) Cloudy but no rain. Am almost on the beach & can hear the waves softly lapping

natural break (I learned later)

This island has an incredible barrier reef - only one small break in it! The basalt plug which forms the central part is almost a geological model of a volcanic neck - the island is much larger than I had visualized from seeing aerial photographs. Vegetation seems quite depauperate, although on the coastal "plain" coconuts seem to grow well. The island is spectacular in any sense - more beautiful than Moorea although I think Tahiti is the most beautiful island in the world if one discounts the north coast of New Guinea or seen from the Gulf of Huon.

There is a steady roar (almost sounds like a distant jet plane) of the sea breaking on the barrier reef. The frequency seems to be about each 12 seconds for the major swells breaking over the reef. The southeast trade blows very steadily during the night here.

Matson Line ship pulled into Bora Bora lagoon this AM. anchored off Vaitape. Launches to shore 1 day for passengers

May 21 Hotel Matavai, Papeete
written at 2PM.

Breakfast at Bora Bora Hotel yesterday about 10 AM. Spent most of the morning exploring the place & wading in lagoon & paddling over the coral close to shore in a curious plastic float which has a glass bottom face hole to see down. Since I left my wading shoes in Papeete was somewhat limited in operations. The water here is incredibly clear, but the life in the lagoon seems less varied than in Fiji except for fish. Around one coral overhang counted 12 species of fish in a few minutes. The most interesting of the fauna was an octopus which I hope I got some good pictures of. After lunch went down the road on foot forward Vaitape Walked for 2 miles & saw nothing but unmanage or mis managed coco nut groves. Many large piles of sprouting nuts. The natives here just let them drop & may or may not pick them up. A depressing sight as is much of French Polynesia. Later in afternoon yesterday more time on the lagoon. It seems that

24 at beach party (barbecue) last night met a Mr Babb of Litton Industries, Woodland Los Angeles - electronics + amateur astronomer

I was scheduled for 2 nights here and asked manager if I could stay over for another day and leave for Papeete on return plane. He failed to remind me that the plane left at 10 AM - so this morning I slept til 7:45 only to discover I had to pack up and leave on hotel bus at 8:30 - hence no breakfast. But I was charged for 2 full days minus the price of today's lunch - a total of $77 for my busy stay in Bora Bora. Hardly worth it, although it is an incredibly beautiful island. Launch got us to airstrip on Bora Bora on time and plane was on time at 10 AM. Came down at Riatea ten minutes later. This island has one Hotel - the Bali Hai - cost is $15 including meals (single). From Riatea one can take a launch across the lagoon (some lagoon between the two islands) to Tahaa, which is a large mountainous island. Was told one could stay there with a family (there are no hotels) for 300 - 400 francs per day! I wish I had known

x NB - number of people transiting Papeete last year was 31,000

about this earlier because the Bora Bora is extravagantly expensive, although with excellent service, food + "atmosphere"

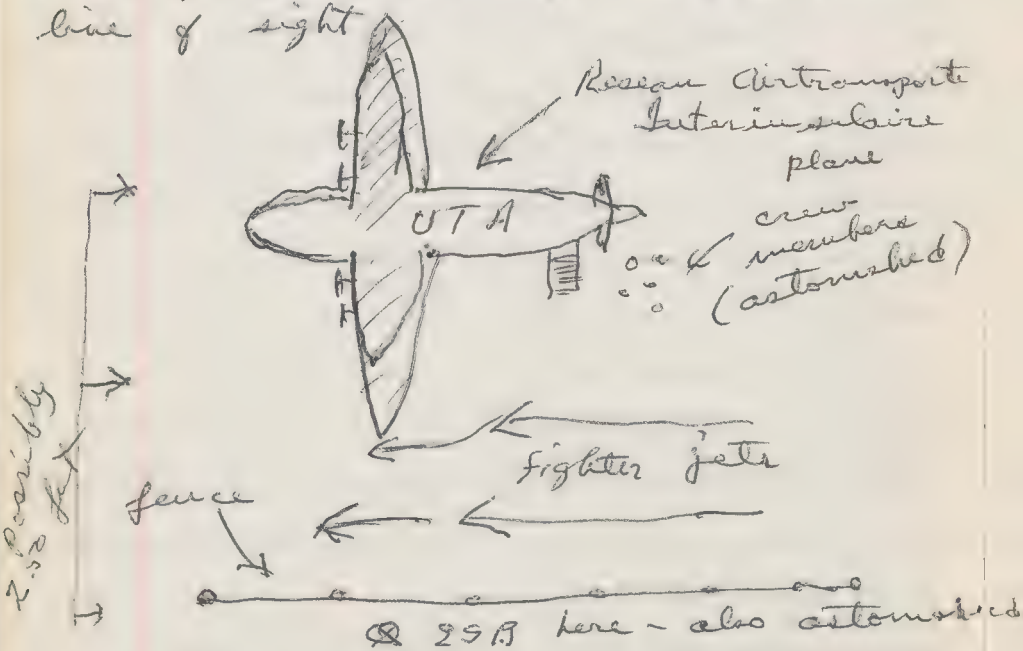
At the Bora Bora about 90 - 95% of all guests are from U.S. and of these I am told about 70% are from California.

The food here is of strange origin - the beef is from New Zealand, vegitables from cans + very little fruit. At the beach barbecue last night there was a whole calf cooked Polynesian style on huge spit made of wood - the animal trussed by each leg. I learned this AM that it was from Australia!

Beer at the Bora Bora is 40 francs per bottle while at the Matavai, which is scarcely a luxury hotel it is 60 f! My lunch today at Matavai was 250 f plus 60 f more a bottle of local beer. This is an incredibly artificial economy, yet there are all these lush volcanic islands scattered across French Polynesia. This situation cannot last since the native population is mushrooming (27000

in Papeete alone now).

But the atom testing goes on. At the airport at Bora Bora two supersonic fighter planes suddenly roared by between the UTA plane and me – I was at the fence alongside the field – They were going at probably Mach 1 or more and the tiny planes seemed like mosquitos – I could hardly see them go past – at right angles to my line of sight



waiting room

They were just above ground. It must have been a stunt for some

An American company built a copra processing plant in Papeete - has been in operation now for 6 months

reason - probably to impress the foreign - or else totally unauthorized.

At Raiatea we had to wait for nearly half an hour (is normally a 10 minute stop) until a large flying boat came in from some undisclosed point of departure to have off a large crowd of men whom I learned were "atomic workers" was told this by one of the hotel boys from the Bali Hai who was waiting at airport for someone.

On arrival in Papeete went to Metavai where I will have to pay for another room since the Pan Am flight to Pago Pago does not leave until 10:30 tonight

I find I have too much luggage - with room to put anything extra in. Also find my electric razor will not run - it didn't in Mexico either. It never ran properly after it came back from the Schick store in Boston. Something wrong with the motor because the battery charger light goes on.

Later - 3:30 PM - walked up

The hill road from Matavai — traffic incredible — very dangerous walking because no provision for pedestrians — also no pedestrians everyone but everyone either in cars trucks or scooters — the latter are much larger for most part than those I saw here 3 years ago. Children ride bicycles. Came down and turned right toward town — traffic even worse. Thought I could escape it some by going down to road along the harbor. This was absolutely incredible — at 4:30 it was <u>impossible</u> to cross the street without 3/4 certainty of being hit. I waited 10 minutes and gave up to walk along on shore side (no sidewalks) for about a mile. About 5:15 I crossed and walked around in commercial district. Great changes here — whole blocks of new shops — something like Noumea. Finally found the city market. Much more going on than three years ago but walked around to observe prices. These are posted on large signs overhead. Here are

some Papeete city market official prices - all in Polynesian French Francs

~~Eggs~~ local (January to June)	135 / doz

Vegetables + fruit

Taro	35 / kilo
pears	20 each
large grapefruit	40 each
oranges	70 / kilo
tomatoes	110 / kilo
carrots	50 / kilo
green beans	90 / kilo
cabbage (European type)	70 / kilo
cucumbers	60 / kilo
salad greens (escarole)	95 / kilo

Meat - (Beef only listed) = Local Beef.

cotes entrecotes	200 / kilo
filet	240 / kilo
ragout	120 / kilo
daube d'epaule	200 / kilo
alayou	240 / kilo
daube cuisse	220 / kilo

[The local beef is tough as leather] from what I have had of it.

Later 7:30 PM.

Decided not to pay for another exhorbitant meal so went down to the local magasin near the Matavai and bought a can of crab meat (Canadian) and a small tin of pork paté de foie gras – total ~~102~~ 107 francs. Crabmeat was 92 francs for a 7 oz. can; the paté was 15 francs for 2 3/4 oz. Not too bad fare when washed down with some Guadeloupe rum and Papeete branch water?

One more aspect of Papeete which is quite incredible – While the sun was going down over toward Moorea late this afternoon and while I was looking at the small craft (mostly from Los Angeles) moored at the "small yacht" basin, I noticed that the large valley just south east of Papeete city was full of smog! Later I noticed it was worse. Apparently a full scale smog problem is developing here under certain weather conditions as today. The southeast Trade winds are cut off by the higher mountains and the smog sits in the valleys as the wind does

down. This was the greatest shock to me to see such a spread of the pollution cancer, here in the South Pacific. The French are doing a good job on ruining one of the few potentially idyllic parts of our world And for what! Prestige.

French Navy is cluttering up Papeete harbor - one large flat top and numerous destroyers and a few cruisers - also all sorts of smaller craft.

Tahiti is well named the "cancer of the Pacific and it is rapidly spreading."

Saw Weber again this evening. He seems to be just drifting around in the Pacific - Noumea next. I wonder how he has the resources - or whether he has some scheme in what he is doing.

Later - Flight 822 left Papeete 50 minutes late - at 11:25. Same mad crush at airport. Mostly Americans with wives + sour faces. This plane (707) is enroute to Pago Pago → Honolulu

to Los Angeles. Flying time about 3 hours to Pago Pago — one hour earlier there.

May 25 – Saturday 9:20 PM. Written on New Zealand Airways flight 531 from Pago Pago to Auckland via Nandi.

Arrived Pago Pago about 2 AM local time on 22nd. Taxi to Hotel Intercontinental – about 7 miles from airport. Nice clean little airport. Intercontinental is a large and confusing establishment. My room #18 is one half of a more or less square bungalow with a round thatched roof. Very picturesque place as I saw in daylight next AM. Nice beach – no surf – great swimming in afternoon. Bar is expensive – drinks 85¢ each; beer 55¢. Only beer served is Hamms!

The town of Pago Pago is very small (The whole island of Tutuila has 28,000 – up 43% since 1960!! – highest birth rate of any American possession.) There is almost nothing here but some administrative buildings, general merchandise & trading stores, one bank, 2 bars (beer only) a native crafts shop and

Auckland weather announced as light rain, Temp 59°F

other essential installations. A pretty shabby looking place. The natives here are U.S. citizens.

Wanted leave for Apia the day of arrival but was informed by Polynesian Airways that their DC 4 was broken down + they could not guarantee my return on Tues on their DC 3 flights. I later learned this was unfortunate advice because I could have made it in view of the new schedule via Air New Zealand.

The night of the 22nd was the night of John Eardeley's party - what an affair. To bed about 2 AM. would take too long to write details.

The 23rd weather not too good - no sightseeing, packed a box + mailed to home - $1.55. The Pango Pango Bar - what a swinging place even though only beer. Decibels are free as is the dancing

It is easy to keep up on world news here because the hotel lobby has a teletype machine which feeds out all sorts of news all day long - yards + yards of yellow paper comes rolling out of it

Today (Friday 24th) was the day of the big riots in France - it would seem the country is almost at verge of a civil war.

Took cab to airport about 2:30 - The flight to Auckland left at 4. Put down at Nandi, Fiji about 2 hours later. Perfect flight and right over Viti Levu. Curious haze below about 5000 feet - looks almost like smog, but very sharp interface with air above. A mystery - have never seen anything like it before - same taking off later for the Six over the sea. Blood red sunset over Pacific

Three hours later and now descending to Auckland - too rough to write more.

Later -

Logan Park Motor Hotel - about 9 miles from airport - very nice accomodations This is Sat night and the place crowded Floor show for dinner guests only! To bed early.

Heavy rain tonight but mild

This is May 25 here

May 26

This is very confusing with the day change plus the time but change added in. Left Pago Pago at 4 PM May 24 and arrived Auckland at 8:50 PM May 25, local time

Up at 7 this AM and to airport about 8.15. The place was jammed. Two flights to Sydney within a half hour and both jammed.

Spent most of the flight time across to Sydney talking with Ted Queavy BOAC agent in San Francisco. He was terminating in Sydney after a continuous crossing from San Francisco. San F. → Papeete → Nandi → Auckland → Sydney. A very intelligent chap. Has been with BOAC for 7 yrs

Weather in Sydney cold and blustery some showers - South wind. To Hotel Metropole by 11:30. Room cold but they have given me a heater.

May 27

Peter Jerrard -

May 29 - Adelaide, S. Australia

This is written in my room in the Grosvenor Hotel. On Monday went down town and made a few purchases. It took nearly two hours to locate a replacement cable for the strobe light - the original I apparently left on Bora Bora. The only lamp in that dark room had burned out the night before and I must have missed it.

By good chance met a Mr Maurice Williams in the lounge of the Metropole. He is a member of the Legislative Assembly of Western Australia, and a very nice person. On Monday night he + Bill Schopf and I sat up until late sipping Bourbon.

Bill + Julie arrived about 11 on Monday night. They were quite tired but in good spirits. Yesterday AM I decided to go on to Adelaide rather than wait until Wed. AM. A wise decision I find. Plane to Adelaide via Melbourne at 6:10, changed at Melbourne and arrived here about 9 PM - fast service, but no food served on

after flight! Same old Assiett Avia as I remember on that hungry flight from Perth to Adelaide three years ago

Weather in Sydney yesterday bright and clear, but chilly. Had an hour talk with Bill & Julie in the lounge before leaving for airport at 5. They wanted to take me to dinner at the Towne House - where I ate on Sunday night.

Put up at the Grosvenor last night and wrote letters etc after a steak (tough) dinner in a small restaurant on next street up. Slept late. Mailed letters

Went to the afternoon session of the Australian Society for Microbiology. Mr John Harris, the Secretary had left me a cordial letter and a program. They have put me on for the closing address Thursday AM at 11 !!

The quality of the papers I heard was excellent - each 30 minutes. The group is so small by U.S. standards - probably about 80 persons attending in toto - 2 concurrent sessions for 3½ days. My paper will end the meetings. I detect a distinct element of scepticism

about our Pro E studies. Will be very interesting to see the reaction tomorrow

May 31. Perth, W. A.

The reaction was very favorable - to my hour-long talk in Adelaide yesterday. There were a number of questions and the discussion was terminated at about 1 PM. Lunch was a swingout bord affair at the Arkabar Restaurant - a large dine & dance place out in Fullerton (?). Miss Barbara MaDougal sect to the So. Austn. Microbiological group piloted me around, back to the hotel and then to the geological offices at 196 Rundle St. Had a long talk with Helmut Woppner. Plane to Perth was about an hour late - lft Adelaide about 10:30. Arrived Perth about 12:30 local time which is 1½ hrs different from Adelaide. The flight was much longer than scheduled since there were head winds at 30,000 ft & over 120 m.p.h.

May 31

~~June 2~~ Perth.

Up about 9:30 this AM and busy with errands all morning. Took

suit to dry cleaners and learned that I could not get it back until Tuesday! Monday is a holiday!! Founders Day, about which nobody here seems to know very much except that it is a holiday. Parked a small box and mailed it home. Almost all the services one needs are within a block of this hotel - P.O., bank, news stores, drug stores etc. The hotel is ideally located.

Called at Geol. Survey this afternoon and had talk with Trendal. Joe Lord is in Canberra! Trendal got together all the maps + guides I will need about 10 lbs of stuff - which in the absence of my suit all goes well into the suitcase.

June 2 Perth 4:15 PM

Called Dorothy last night - it was amazing to hear her voice from 12 000 miles away and such a relief to talk with her - only it was difficult to understand her at times.

All of Perth closes up tight at noon

on Saturday – even the news shops
But it is a "swinging" night socially
as was Friday night. The night clubs
keep going all night long, literally.
The town is crawling with teen agers
and young 20s and bop music and
dancing goes on & on. There is a
teen ager night club across the street
on corner of Hay & Pier. The windows
are all blanked out but the music
goes on and on. Stayed in the lounge
until about 3 AM Sat. and the
place across the street was still in
full swing when I went to bed.

Today is a quiet Sunday – the
streets are almost deserted except for
cars & buses. Weather pt cloudy & cool
as it was yesterday – max temp about
65° both days. Friday was rainy most
of the day – some quite heavy showers,
but they are welcomed here since there
has been very little rain all of May.
This is a considerably milder climate
than Adelaide and much more stable
as is the west coast of the U.S.

Write 6 letters yesterday and posted

them. Will now get a letter off to D. Getting dark now. I must be at airport by 4:30 AM. Plane to Roebourne. Avis car all set - will book a Falcon tomorrow & they tell me a Land Rover on Tuesday for as long as I need it. Avis in Sydney dealt directly with Roebourne and by-passed Perth, which caused much confusion here and several phone calls to Roebourne.

June 3 Monday - Roebourne

Difficult to keep track of the dates. Plane to Roebourne (MMA) left Perth at 5:10 AM - stayed up most of the 2nd. Stopped at Geraldton, Carnarvon and Onslow before landing at Roebourne. Plane a curious over wing Fokker, but well powered with 2 turbo-props. Nice not to have to look down on wings, but rather to look up.

This is really getting near the end of the world here. What an incredibly desolate country - no habitation except

these widely scattered towns. Roebourne airport is one room & much smaller than that at Bora Bora. The "terminal" would easily fit into the garage at home.

The center of life in this town is the Victoria Hotel. There is a small P.O., a police "station", one school & 2 churches. Two general stores. Sidewalks of bituminized gravel are being built - no concrete sidewalks. There is a curiously casual air about this town probably because it is far removed from the tourist beat. Why the Avis agency is here is quite a mystery to me.

Weather absolutely clear - sun hot & temp prob 85° or so - but humidity very low. Vegetation in area arid to semi arid in that peculiar Australian way - scattered trees - eucalyptus mostly amid the spinifex grass which forms endless clumps across thousands of miles of this country. Very few shrubs and nothing like our sagebrush of the western US & Mexico.

Roebourne has a population of nearly

450, of whom 250 are aboriginals.

June 4 – Tuesday

Up at 7. Bought food + other supplies at the Roebourne Merchandise across the street, Mailed letter home. Mr Holt brought the vehicle to the Hotel – a somewhat tired large Toyota but the motor seems in good shape Mileage on it 69331. Supplied with 20 gallons water + 10 extra gallons gasoline. Got everything in easily with lots of room to spare

Mrs Holt tracked me down about 11 o'clock and informed me that an amateur rock dealer, a Mr Leah would be happy to lend me his compass for the week – how nice. Mrs Holt was driving around in the town school bus + piloted me to Leahs lapidary establishment and then home for a cup of coffee before dropping me at the Hotel – what more friendly treatment could one ever expect?

Left Roebourne at 12:20 on road to Wittenoom – 185 miles. Stopped

here & there for photography. Turned off at Python Pool and was surprised to see an excellent showing of upturned sediments exposed in a spectacular vertical outcrop above the small lake or pool. Thick bedded black cherts. Collected 10 or 11 pieces. This is probably lower Fortescue - certainly Fortescue. There is an excellent exposure of the Fortescue group on the road between here and the road (right) to Millstream. Most of the rest of the way is over quite flat & geologically uninteresting country clear to Wittenoom. The road follows north of the Fortescue valley, paralleling the north foot hills of the Hamersley Range which are far to the south. The mountains are not high, but form a continuous line. Got dark about 6 PM & arrived Wittenoom about 6:50.

There is a depressing abundance of dead kangaroos in the road - in all stages of decay. They run - or hop across the road and apparently there is a continuous toll from cars & trucks - which are exceedingly few

on this lonely stretch of country. In fact this is the most deserted country I have ever driven through. There is not one single habitation between Roebourne & Wittenoom — except a temporary RR maintenance camp about 75 miles from Roe. The new RR between Mt Tom Price & Port Headland crosses the road twice - second crossing ca 95 miles from Roe. From here on there is nothing until I saw the lights of Wittenoom about 20 miles away. Brush fires - gloom

Lots of kangaroos were hopping around in the brush about sundown. They scamper off from the road, but are hard to avoid hitting at times. An extraordinary sight along about 50 miles of the highway between Pt Headland Rd & Yampire Gorge Road are the thousands of termite mounds from about 3 to 5 feet in height. They are brilliant red in color from the extraordinarily weather ferruginous soils & stretch endlessly across the landscape looking like miniature houses as far as the eye can see. The rolling spinifex covered hills & undulating plain have

a unique charm despite the arid austerity of this country.

The hotel at Witteroom is considerably larger than Roebourne, and the general air of the place less friendly & more formal probably because tourist frequent the place — to a limited extent.

June 5 Wednesday

Studied geologic maps & field guide & descriptions for hours last night. All academic knowledge until got into the field this morning. First made a few purchases — ~~esp~~ a flashlight & checked car — 11 gallons gas & quart oil — also battery needed water.

Went south on road to Witteroom Gorge (This town is now officially Witteroom, not ~~Wtbo~~ Witteroom Gorge as it used to named — the Gorge proper is a geographic feature at the south end of a seven mile bitumen strip laid by the now defunct mine Victoria ? and the large now closing down Colonial Mine of Australian Blue Asbestos Pty Ltd. — The road to the south ends in a rather unfriendly series of warnings to keep out. I went as far as possible to

the end of the road leading up to the abandoned Victoria ? mine about 7 miles south of the town. For some reason or other there is still a mine manager here as I was informed by a woman who pulled up while I was deliberating going on. I followed her up to a fairly large dwelling beyond the abandoned mine at a farm-ground & went back out & then walked back in. There is a beautiful exposure here of the base of the Brockman Iron Formation — the curious crocidolite - interlaminated iron formation

On the way up the Gorge about a mile west of town identified the Wittenoom Dolomite — which has remarkable chert beds in it — lenticular up to 3-4" & many curious "pods" or semi nodules. There is an approach to this in the upper Gunflint, but not really the same. A very curious depositional situation both chemically & physically — It cant be the result of differential compaction as Trendall proposes.

The Wittenoom Dolomite is readily recognized by the large pure dolomite & mixed dolomite - shale series which

are quite nearly white when fresh, but quite granular, soft + sort of silty in aspect – they dont have the texture of good dolomite. Possibly this is partly due to the intense deep weathering here since probably Mesozoic time. Fortunately erosion along the canyon wall keeps bringing down fresh stuff. In fact it is a bit terrifying to collect here under an overhang reaching up hundreds of feet! The cherts out of the Wittenoom dolomite look fresh + waxy + without pyrite – but are black in thin fracture slivers, not brown.

About 3 PM started east on road to Pt. Hedland + turned off to south (15 mi.) up Yampire Gorge Rd. Went up 13 miles + collected at 2 localities from the Brockman Iron Form. chert. This is in places very thickly bedded – 4 – 6" or more + very vitreous + fresh. Splinters badly under the hammer with razor-like slivers. Is translucent gray in thin slices but markedly laminated.

Started down the Gorge about 4:45 and got to main road in time to face the most glaring western sun I have

ever seen - only a few diameters above the horizon and as strong as the mid-day it seemed. I drove on slowly to the west directly into it. It was still a glare when half way sunk into the horizon, and even when set the glow was such to make the road a problem to see. Decided to wait a few minutes, change film & started on - only to discover I had no headlights. Decided to go on as fast as possible to Wittenoom or spend the night by the road. It was a wild drive into the western glare - the road only outlined by the refracted light from the spinifex on each side. Fortunately met no vehicle the 13 miles west to Wittenoom where arrived in nearly full darkness with no lights. To Wittenoom by 6:15.

Weather ideal - cool evenings with almost too cool but dry breeze. The day warm & intense sunshine - no clouds. This is an almost ideal "winter" climate - there is nothing like it in the U.S. for any season - perhaps could be matched in the highlands of Chihuahua, Mex

in the winter months.

Photographed one of the multitudinous giant ant hills this afternoon. It was a good 9 or 10 feet tall & hard as an adobe house. The construction is extraordinary with many curious large porous O O entries — the ~~coat~~ construction is ~~pyramidal~~ conical & the hills often taper sharply at the top to a steep cone. General aspect at a distance is pyramidal, but the perfection of shape is very variable. Many look like weathered talus boulders & of course in this country are exactly the same colour — iron red. A puzzling feature is the assemblage of roots (or stems ?) at the base — I presume these are the remains of spinifex caught up in the expansion of the mound. The ants themselves come out when the mound is thumped, although not in great numbers. They, at least the ones I observed were quite small (ca 3 mm) very active and nearly black. I wonder how many years to make such a structure — it is an incredibly compact material not just dried sub-soil.

* June 5 - 11 PM - was told by a man with whom I met in shower room tonight that Robt Kennedy had been assassinated - can this be true??

On the way down the Gorge saw many small gray kangaroos, but also a large dark brown handsome haired 'roo who hopped off + stopped. Was too dark for pictures but I got out + approached him. He hopped off a ways + watched me. It was much larger than any of the hundreds of dead ones along the road and entirely different in color.

June 6. Thursday.

Another cloudless day over northwestern Australia. The brisk easterly wind all day yesterday and last night slowly died off and the morning seems warm, but comfortable. Left for Trendall's locality (near junction of Port Hedland road + the Yule River) about 10. Long drive over unfamiliar roads - about 70 miles. Found the Yule River by the big white eucalyptus in the main wash. Took some doing, but found the spot. Very interesting locality - the base of the Fortescue rocks (sediments + highly ferruginous) lie here completely unconformably on the deeply weathered Archean conglomerate surface. The Archean rocks here are totally devoid

of iron + the contact is remarkable in color contrast – white saprolite below + bloody iron rich angular fragments, boulders etc. above. The Fortescue rocks are in a sense crumbling down ~~into~~ a "melting" basement. All this is revealed dramatically because of the erosion cutting of the Yule (Coolooweie) river when it runs water. Whole area is now a series of dry washes + damned easy to get lost in. Collected a good suite of the basal Fortescue chert – it is probably worthless for fossils since it appears to be re-crystallized + granular. Ca 30 lbs. After labelling rocks left at 4:10 for Witteroom. Stopped a number of times on way back for photography. The 4 kangaroos I ~~d~~ wd to get lasted off too soon. Also the herd of 5 cattle (peculiar looking short horns) got away in a rush to the bush in the setting sun. Arrived back in Witteroom at 6 PM after a wild ride over the washboard road to get back in time for dinner. The incredible glare of the setting sun directly in front and the afterglow even worse. These ~~West coast~~ West Australian sunsets are incredible – the air is so absolutely clear

that the glow from the sky is almost impossible to look into and see the road ahead as well.

The Fortescue Hotel was hopping shortly after I arrived. As I later found out it was a charter flight of C.C.'s from Perth. Came in this evening from Port Hedland — a whole DC-3 full. Sat at a deserted table in the dining room & was soon joined by the flight crew — the Captain sat to my left, the stewardess to right, co-pilot opposite and members of the group to fill the table of 8 — a merry dinner. The Captain brought in several bottles of wine and the whole company was congenial. I was innocently engulfed by the festivity, but they were all so cordial & congenial to the "lonely American" — especially the stewardess Carol. She is the only female in the whole group on charter flight from Perth → Darwin & return — 8 days.

* The news was confirmed to me tonight that Pres Kennedy has died. This is another tragedy for the U.S. The Aussies here make little of it since he was apparently disliked and they — those who expressed

Their opinions were afraid he might become President.

June 7 - Friday 7:05 PM.

Written by the light of my campfire somewhere near Joffre Falls. Got here about sundown & spent the rest of the daylight collecting fire wood - Eucalyptus is extraordinaly heavy and makes the finest fire I have ever seen - no sparks & burns like charcoal except for a good flame.

Up Yampire Gorge today - excellent collecting. Too hot by the fire. Am sitting on front of my Toyota writing by a combination of moonlight & fire light. Cant even read what I write. This is a lonely spot - about 70 miles from Wittenoom over the the damnedest road I have ever driven.

Stoked up the campfire & can see better. There is a gibbous moon but partly cloudy. It is dead ~~absolut~~ silent here and I haven't even seen a kangaroo all day. No human being. What a strange part of the world this is, and yet it grows on you. To be on your own is a fulfillment we dont know nor can imagine back home. To be sure I am com-

pletely dependent on my vehicle, but so would I be if I were on horseback.. It is just quicker and more worries one this way.

The eucalyptus logs are burning bright with a lovely quiet flame - have never seen any wood more perfect for a fire. The wood is very heavy - prob. would sink in water. This area has clearly had bush fires years ago so the wood is probably harder than normal.

The combined moonlight & fire light made it just possible to write, but am getting sleepy. Dead silence - not even a cricket. What a strange part of the world.

Slept from about 10 until 1 - cold - put on suit coat, more wood on fire & asleep again until 5. I saw a faint glow in the northeast at 5 - light, almost at 6 - the sun came over the eucalyptus & sulge at 7. Strange to see the dawn in this so utterly foreign landscape. My fire did well all night. Fortunately because am out of wood. Wood is extremely scarce in this part of the world.

Sat. June 8.

Drove back to Wittenoom early this afternoon - very tired. After dinner went to cinema. The theatre has 4 walls but

58 * Found a gentleman in my bed tonight when I got back from the Cinema. Mr Johnson the Manager ~~visited~~ him. He was "lost!"

no roof! Canvas seats & blankets are furnished. All very informal what with the children ~~running~~ around & playing.

Pt cloudy to cloudy all day.

Am beginning to get weary of this isolated existence and going to the cinema only made it worse.

June 9 — Sunday — 6:55 PM

Am waiting patiently after working levels along left side of highway for the water to go down. This stream is too deep to ford even with the Toyota. Went in up to ~~wheel~~ wheel tops & backed out just in time to keep motor alive. Some trip from ~~of~~ Wittenoom.

Up at 7:30, early breakfast & decided to do more collecting along the Wittenoom Gorge Rd. Decided to leave for Roebourne today since Mr Johnson tells me that there are 40 C C's coming in tonight & I may have to double up. Not for me. All packed & ready to leave at 8:50. Went down to Gorge & collected more chert etc. Started to rain. Has been working up to rain for the last 2 days, but all hell broke loose after noon. I had started out on the Tom Price

Road about 11 and watched the mountain disappear in rain — turned back after 15 miles out + returned to Wittenoom — a very good decision. On Roebourne road ran into sheets of rain — couldn't ~~see~~ the road ahead. Presently began fording "dry" streams bursting with water. Kept going as long as possible, although nearly bogged several times until near the 2nd crossing of the Tom Price — Dampier RR, where the water was too high. Have set markers to see how level goes — seems to be going down slowly at 6:45. Have engine going + headlights on to watch. Still want to get to Roebourne tonight — 96 miles further on. Now totally dark. Am near the temporary RR. camp — can see their lights to the NW.

7:30 — water still going down — but slowly — so slowly. Will put in another marker. The stream across the road is pretty swift + I hope not channelled below roadbed. This is a pretty primitive road. Not running. Completely black night.

 Rainfall in Roebourne on Sunday = 5.5"

June 13 - Thursday - Roebourne

1. Mr William Johnson - Wittenoom
2. The road to Tom Price - & return to Wittenoom - the mountains were disappearing in the rain - creepy. Turned around & 30 miles back. Gasoline.

3. Crossed about 20 creeks - walked some - up to wheel tops OK.

4. 75 mile camp R. R. - Went over the apron. Toyota floated down the stream like a row-boat. Swam out - Close shave.

On Wednesday had another rain - only 2.5 inches.
Kentucky Tavern Day - Thirsty Americans from Montana - Miles City - Dave & Russell -

RR camp
75 mile

1. Mr. Greenwood -

2. Harold + Jean Webb.
Perth.

3. Hon. Mr Camm
Min for Interior. W.A.
(a nice man)

4. → Murray Bartlett.
Kiwi Friends = "

5. Jean + Harold Webb —
* Harry is the salt of the earth. — a good man.
Spent many an hour together — he is a good man — borne + brought up in the bush — N. Tas.. He knows the country — + loves it..

I was very ~~lucky~~ lucky to find good people here in Roebourne — the Webbs are tops when you are at the bottom.
But more, Harry is a real nice

person — I wish there were more like him in this ~~[illegible]~~ world.

Monday June 10 —

At RR camp all day. 10 men couldn't push the Toyota out of the stream bed. Finally got a Land Rover & plus the 10 and got it out & hauled it up to the camp "garage".

Wed. June 12.

Pouring rain all morning — the street outside east side of hotel a stream of water

Saturday June 15

Mrs Hold drove me out to the airport about 1 PM. Settled account with hotel - $50. and Ron Holt - $231. Waited at airport over an hour when we finally heard the plane coming in - 2 motor Fokker. They let me on & I hope I can get through to Perth.

First landing at Barrow Island. What a desolate place but a large oil storage depot - 4 tanks each 250,000 gallons. Pipe line goes out to sea 6 miles. Crude oil pumped out here

Next landing at ~~Exmouth~~ Exmouth ~~(Exmouth)~~ at 4:15. Rough & choppy.

Coming down at Carnarvon.

The river here has flowed in flood at 1 million gallons / second.

NASA tracking station is 3 miles east of town.

This is a ghastly looking water logged plain

Landed Geraldton about dark

Neville Stanley address = 28 Keane Pep Gr.

Landed Perth at 8:50. Put up at King Edward. Called Dorothy — got through at 1:30 AM. Could hear every word except some sounded peculiar. Bed at 3:30 AM.

June 16. Perth. Cloudy + threatening afternoon
Up at 11:30. Brought box up from downstairs — everything OK. Neville F. Stanley called about noon + invited me to dinner. Picked me up at 4 PM A very pleasant evening. John Perry was there — an incredible character — cant stop talking but extraordinarily intelligent Mrs Stanley (Muriel) was a very gracious hostess + a very personable and attractive woman. Their home comfortable large + with large yard.

June 17 Perth. Up at 8:30. Pouring rain. Got suit, checked plane select Took cameras to Ambrose + Henry Minolta Ng. Bought a Canon — 2nd hand but excellent condition A $144 including wide angle auxellion lens. Repairs to Leica $18.00. Sent package from P.O A $2.40

Called Neville Stanley at his office He offered to pick me up at 2 PM for airport. Got to airport about 2:30 Raining. Qantas plane from Sydney on time + left on time. Heavy clouds to well beyond Carnarvon.

Came down in Singapore about 8:50. Hotel Cathay about 9:50 Good hotel on the Singapore hill. But a bit stuffy. Coat + tie for dinner, which I did not wear. Walked around the Raffles tonight — and renewed memories of the geography. Clear + pleasant night. Air conditioned room — $42.00 + tax

June 18.

Some day. Taxi down to Robinson road — BOAC — MSA. reservation OK to Djakarta. Walked up harbor front on the Queen Elizabeth Walk to Raffles. To China Trading Co — set aside some purchases. Back to Cathay Packed. Down to Amer. Express. Walked back to Raffles again — very hot. Left Cathay for airport at 4 PM.

Plane to Djakarta (MSA) a comet - very good service + very well piloted - all Indonesian. Very pretty hostesses - so much in contrast to the dour Australian girls. Weather good leaving Singapore. Landed in Djakarta in a downpour with thunder + lightening well around us. Umbrellas from aircraft to airport entrance saved my clothes + hand baggage, but the suit case was soaked again when it came in with the baggage from the hold. Was amazed when I walked into the airport to be greeted by an Indian gentleman who asked me if I were Prof. B. He had been asked by Air India (Frankfort Germany request) to meet me. It was a godsend to have help ~~by~~ like this in an utterly strange city on a night like this. He piloted me through customs, got me transportation (not a cab, but Air India car) and took me to the hotel - Wesina Warta - he had met me with instructions to take me to the Indonesian Hotel.

 Indonesian language has no written alphabet - use our Latin letters only.

I declined politely - so came here. After a few hours decided to go see the Indonesian Hotel and there discovered where all the Americans are. Another Intercontinental Hotel - same chain of U.S. Australian capital as the Pago Pago Intercontinental. Swarming with Americans + none here at Wisma Warta. The Indonesian is all air conditioned, this one has not even fans but is clean + neat + the service excellent - also it is large + just across the big circle (Indonesian Circle?) Apparently there is no accommodation in between.

I understand Dutch is well understood here by the natives as a second language Rice to me I don't speak it.

Rained for several hours after I got to hotel. Went through about 2 miles of water flooded street + road on way. Me- tells me it will all be gone by AM.

Coincidentally this is the 441st anniversary of the founding of Jakarta and there is a big Fair going on - the first time the Javanese Fair has

been held in Djakarta.

Midnight – The rain has ended several hours & the humidity is going up fast as the water evaporates from the warm earth & road.

Talked for about 2 hours with a man by name of Stern who is a highway engineer with AID, this evening – has been in Sumatra for 7 weeks & also Java for some months. Learned a lot about the problems of road & highway development – also the financial aspects through the World Bank program of survey, feasibility etc – but no time to chronicle it all. Will have to remember. The mind will never be a tape recorder – nor should it. We would all be unhappy in retrospect – or confused.

June 19 – Djakarta

I was all set to get off to Bali today on Garudas 1:30 flight (0570 ≅ v+) but got a bit concerned over Garudas recent safety record – one plane down in Bombay last week, and an open cabin door over Java two days ago. The

 The Sukarno Tower is 110 meters high & has 25 kilos of gold in the top.

safety record of Indonesian airways (Garuda is a bird in Indonesian) is not enviable & somewhat of a joke around here, despite the extent of their operations. The other factors which turned the decision were the fact that I would have less than 24 hrs in Bali of which 12 would be at night plus 4 hours back (Convair 2 prop) to Djakarta. Also if I stay here until Fri AM will be free to get up to Bogor tomorrow. Plan to leave here tomorrow at 9:30.

This afternoon I hogged a rickshaw and went around this incredible sprawl of a city for about 2½ hours. See films - if they come out.

Cleaned up about 6:30 and went down to the bar for a drink. There was only one man there & he mistook me for someone else so we get to talking - his name Frans Bakker - from the Hague. Is ½ Indonesian and an engineer by training. One of his brothers graduated from MIT in electronic engineering. He was waiting for someone & went down to the desk to check. Brought

This the 441st year of founding of Djakarta - signs & lights all over the city

up a heavy set chinese whom he introduced as Mr. Hau - Mr Hau invited me to dinner with him & the three of us went off in a chauffeured V.W. to the best restaurant in Djakarta Chinatown (Most of the chinese in Java were butchered a few years ago before Sukarno went out) - Name of restaurant = "Sim Yan" in Petak Sembilan 3 No 51, Djakarta-Kota When we walked in there were three other chinese sitting at the table. After cordial introductions we started a real Chinese dinner. 1. Shark fin soup 2. Shrimps 3. Roasted pork 4. chicken 5. Soya "pudding cakes"? with fish and of course rice. An excellent meal. The Chinese drank chinese wine with their meal, but sparingly.

It transpires that Mr Hau is one of the real big wheels in Hong Kong & Mr Bakker is a technical advisor on one of his new projects in Djakarta. Hau told me he has 11 factories now operating in Java. He was very cordial and I felt I had an exceptional evening.

72 Indonesian trains have the same high pitched squeal that European trains have

There is no time to recount the story of the kris — I shall never forget it. Probably the best bargain I ever bought in my life and fully authenticated in detail by Frans Babb who told me the same: Best estimate of age = 400 years + origin = Central Java. Details in my memory.

No sun today. Excessively humid tonight and no wind or breath of air. There are no fans in this hotel but it is easy to escape by going across the circle to the Indonesian where everything is air conditioned (except the open-air lobby!) But is comfortable when you are quiet

Frans Babb tells me he has quite often seen the name Elso — says it is Friesian, not Dutch! What is the difference. Says Friesians speak a different language — is it true? Also that the Friesians are, if not a miserly people, are wealthy because of their habits. Also commented on their distinctive architecture in buildings & houses.

Population of Indonesia now 110 M - of which 70 M live on Java alone

June 20 - Djakarta

My car + driver arrived promptly at 9:30. Got ticket from JAL and OKed for tomorrow flight at 7 AM to Singapore

Drove up to Bogor 10 - 11:15 Almost continuous "village" and stores for miles out of Djakarta. Road - superhighway to the Djakarta by-pass + then wide 2 lane to Bogor - not a bad road but excessive traffic. It is said to be very bad on weekends.

Bogor is a great change from Djakarta - streets generally wide & the town (110,000) seems so open compared to parts of Djakarta in credible congestion, i.e. in the older parts of the city. Much cooler also even though only 700 ft above sea level. The mountains are fairly close to the south. This is beautiful country and I want to see more of it. It pales much of Central America.

The soils here seem to be incredibly rich - deeply weathered

volcanics - weathering ? deep - rich red. Stream boulders all intensive weathered remnants - prob. andesites + gabbros etc - saw no un-weathered basalt.

Fortunately Dr Dijmy was at the herbarium and he showed us through the garden - by car - He said we saw as much in two hours as would take 2 days on foot. Very nice + friendly person. I took the driver + him to lunch - very good cuisine - Poured rain at lunch hour, but left about 2:45 + no more rain back to Djakarta

My evening rickshaw adventures + the purchase of silver - no time to record. Have to be up at 5:20 AM tomorrow for plane back to Singapore.

June 21 -
Left Kemayoran Airport JAL # at 7 AM.
Weather clear + took 25 feet over coast of Sumatra. On 2nd time

The Camera worked perfectly to 10 feet - then on landing in Singapore under perfect conditions for photography - full sun & looking west the spool failed to turn - a complete mystery. Unfortunately opened camera and probably lost most or all of roll 10 - one of my best, Same back as before the flood in Australia

Got to Cathay hotel at 9:40. Weather OK.

No mail — letter Pan Am offer.

The Englishman I met in Djakarta a couple of days ago owned up to the fact that he had killed a rickshaw-man in Djakarta on the street the other night and critically, probably fatally wounded his two passengers. He had the option presented by the police of either waiting for legal process in three months time, or paying the funeral & other anticipated expenses. He paid and left Sudowara on my flight this AM. How cheap can human life be!

The East is East & the West is West — Absorbed but true story and who

would ever know it?

Had dinner tonight with a former Hongkongian, now of Melbourne Aerator & obviously successful. – Some stories of eastern Europe. He has or has been in Java for nearly 13 years. Also some stories – from beginning to present – of Indonesia in a variety of ways – some contrary really to my own impressions of the country & its people. What to do for these poor creatures of a culture which is still centuries behind the times of western civilization. But agreed it is true that, in one of my friends words the other night – one Chinaman is worth 20 Indonesians – in terms of work & industry. But how artistic these people are – and for what. Their meticulous labor brings about nothing except to the world's men – namely the Chinese, occasionally the Indian.

Spent one hour & half at Chinese Trading Co. – at rate of $2.00 per hour. I think the chinese were good but we will see. I suspect that the "old ivory" game is one of current empties – an

The blue moon was pretty and tempting photography

also old jade as opposed to new jade. Now ivory is a real problem. Weather good all day.

June 22

Made business quickly in Singapore — spent too much US$250 for jade & ivory etc.

Back to Cathay — met Mr de Giulio — talked & drank all evening. A remarkably interesting eastern European Hapsburg. Hungarian — now Australian — Melbourne — Black & Decker; representative for SE Asia for the company. Lived in Java for 8 years. Thinks Australia is a "woman's country"!

June 23. A wasted day in some ways, not in others. In fact a remarkable day in some respects. Sunday in Singapore

June 24 Up early this AM. Malaysian — Singapore Fl. # 856 to Hong Kong via Kuala Lumpur. Left Singapore 11:15 Very tired — slept part of flight. Blyth between Sing. & K.L. Lunch after leaving KL — excellent tender filet

78 Shirley Wong -

of choice N.Z. beef. Weather excellent and passed to east of South Vietnam coast on way to Hong Kong. Several hundred miles along the coast of Vietnam (South Vietnam) - Where the coast goes off to the west went out over the S. China Sea to H.K. Landed HK in a thunderstorm. So much more humid + warm here than in Singapore. What to say about what I saw along the coast of Viet Nam? Unbelievable. And the mountains and the forest to the west looked just like northern Malaysia - why do we have to struggle over this miserable part of South East Asia? - at such cost in lives and human resources. Of course human resource means little here as I learned the other day in Sing. from my British friend from Djakarta. She killed a rich-share man and paid off to get out!! - or else wait three months for due legal process.

June 26.

Off south into the sea – the sun over western China – How far have I been to see this. The day over Hong Kong and the east China coast – A few Americans are here – but very few. I feel alone for the first time in a long time. Wanted to stop in Taipeh, but not possible – Strange place this far East – was unable to ~~A~~ get visa in Hong Kong in time. Stayed in small hotel Abakama out far from airport. The charm that Tokyo had for me last summer has disappeared – too much travelling jaded over interest.

June 27 – Thursday

Waiting at airport for Honolulu flight. Weather quite cool. Hong Kong was unbearable, by comparison with Singapore. But the flight from Singapore to Tokyo was a fascinating although tiring one. Left Singapore about 11:15 – stopped Kuala Lumpur and we noted before passed off coast of Vietnam for several hundred miles – from south of the Mekong delta to

where the coast of Vietnam goes off to the northwest in the South China Sea. Then over a number of large islands before coming down to Hong Kong. Weather not good. Heavy overcast coming in to Hong Kong (Kow-loon Airport on the mainland.) Got taxi after clearing H.K. airport quickly. The driver had a call on the way to the ferry to go back to airport, so had a fair tour of Kowloon (looks like the shopping + small business areas of H.K. - quite unlike it otherwise). Ferry ride over to Hong Kong was something never to be forgotten. That cluster of buildings on the narrow coastal foreland and on the steep hills of Hongkong Island is incredible. They are all so new + all look alike except for height + width. Almost like a gigantic cluster of gravestones in an old New England cemetary. The harbor is jammed with ships + craft of every description. Crossing takes about 10-15 minutes. Got to the Mandarin well before sunset (daylight until after 7:30). Spent part of the first

day in H K walking around + looking at shops etc. This is probably the bargain city of the world - even more so than Singapore in some ways, but also requires more judgment in buying. The place is a real dynamic city. Even though it is still a British Crown Colony, there is no evidence of this. Except for a scattering of Europeans + Americans, many of whom cluster around the Carlton Hotel, the city is about pure Chinese. Population now over 4 M.

Today about 8 bodies were recovered from H K harbor - apparently butchered by the Red Chinese up the Pearl River + thrown in the river. Estimated they were killed 4-6 weeks ago.

Left H K on a sweltering afternoon.

June 27 (2nd one) - Honolulu

Pan Am Flight 2 was delayed over an hour "last night" in Tokyo - radio trouble. Sat in Haneda airport lounge from 7 PM until 10:20 - then in the plane for another hour + half before take-off. It was a long (7 hours) flight to Honolulu + rough most of the way. Suc-

ceeded in getting about 3 hours of indifferent sleep. This is a really rough trip for sleep + orientation. Five hours time difference between Tokyo + Honolulu + also the date difference - or rather parity. Arrived Hon. about 12:15. Honolulu airport is becoming a mad-house with all the U.S. tourist traffic. Got in at the Reef Tower about 1:30. Spent until 3:15 at United Air office to confirm ticket for tomorrows flight - There are so many people waiting to get reservations that you are name listed + called in turn - had to wait about 40 minutes just to get ticket changed. Saw Sandy Siegel + Barbara Siegel tonight for a brief drink at the Reef - they drove down from home To bed about 2 AM. ~~Up~~

June 28 — Los Angeles.

Sandy picked me up at the hotel this AM at 9:30 + spent the morning with him + A.C. Smith at the University. Had lunch and AC drove me to airport. Very nice of him because it is a nasty drive The United Airlines flight 2 PM back was jam packed with U.S. tourists + had to sit

through a movie on flight. This is an imposition because all the curtains are drawn and it is difficult to read even in broad daylight. Arrived Lor-Ang at 10:15 local time — almost 5 hours flying time. Damp & cool here. Checked in at International Hotel about 11.15 PM.

June 29

To ~~Djakarta~~

GARUDA
FROM DJAKARTA
To Buli

7 00 am →

Diana Hunken

~~FHG~~

FHG

Diana Hunken
Fagorogo Tufuila
Am. D. 4

Annuity Dilmy | Director [illegible]

Corpus Bot. Gard.

Kesterpoms | — [illegible]

Dead Sea fruits

June 4
Local. A-68-.1
Chert cobbles & pebbles from Fortescue group collected at Python Pool
Bed rock here is vertically standing ferruginous shales with thick black chert beds interbedded
Excellent exposure on east vertical face directly over Python Pool
Probably lower Fortescue. 9 samples

June 5 A-68-2
Chert "pods" in place, some lenses 3-4 feet long & 3"-4" thick - alternate with dolomite? & gray shale. About 1 mile W of Wittenoom on S side of road to gorge. = Wittenoom Dolomite X.
(is at base of the entire exposed sequence on the north flank of mountains)
about 15 samples

June 5 A-68-3
Chert & dolomite? from Wittenoom dolomite on road to Wittenoom Gorge 2 mi. S. Wittenoom
6 pieces

June 5 A-68-4 -
Black chert from massive 4"-5" bedded in iron formation, Upper Brockman. on left of road up Yampire gorge 13.8 miles from turnoff to south off the Wittenoom - Port Hedland road — chert is gray in thin slivers. Very vitreous + hard

June 5. A-68-5 — Same road as locality 4 except up .5 miles up gorge. Pieces from fresh fragments broken out of a sheer outcrop of the finely bedded facies of the upper Brockman. Shaly iron formation chiefly with thin black chert beds No large beds observed

June 6 A-68-6 - 17 specimens chert from base of Fortescue series — Trendalls locality exactly — hell of a place to find. chert poor - recrystallized - spent 2 hours in area but nothing better. The locality is very interesting however, because the Fortescue sediments are crumbling down onto the Archean sapropelic volcanic

sediments & the contact is remarkable - the Archean rocks are completely free of iron & weather white. Valley of the Coolooweena River - Tributary of the Yule. 200 - 300 yards west of road crossing Port Hedland road

June 7 - A-68-7
chert blocks from talus directly off the Wittenoom dolomite formation. Weathering is apparently chiefly thermal - form blocky fragments. Location about 3 miles from Witt. → Pt. Hedland highway on road up to Yampire Gorge.

June 7 A-68-8. (3 pieces)
Blocky finely bedded chert & iron formation - Upper Wittenoom dolomite - about 2 miles up gorge from A-68-7

A-68-9 - 10 pieces incl. crocidolite
blue crocidolite & blue shale - others all black chert
From lower Brockman Iron Form where road up Yampire gorge crosses wash (river bed) ca 8 mi from Wittenoom Port Hedland road

June 8 A-68-10
black to gray chert - some finely bedded. Same locality as A-68-4 but different blocks. Middle to lower Brockman Iron Form.

June 9. A-68-11
Same outcrop as A-68-2, but wide selection of different chert exposures. Fine grained but highly brecciated. Chert occurs in pods or boulders in a ~~siliceous~~ siliceous dolomite? - or quartzite?.
Numerous samples

June 9 A-68-12
Same outcrop as locality 3. Mixed bag of Wittenoom chert & basal Brockman facies - mostly stream gravel ~~pay~~ pebbles - can only come from these two units

June 9. A-68-13
chert weathered out of the Pfb or ~~Pfj~~ Pfj - Fine grained - from Roebourne Wittenoom road near Tangney Station exactly 75 miles from Wittenoom N side of main road

June 9. A-68-14 - 5.05 PM

Chert - cobbles & residua - from west of Tambey station - from ~~PS~~ PS group. Collected at rising stream crossing just west of where left the stranded car which could not ford stream - exactly 96.4 mi NW of Wittenoom on highway to ~~To~~ Roebourne. Just made crossing - water nearly to wheel tops. Still rising

Fine grained chert. = Fortescue group. Only other possibility is Marra Mamba formation.

* → = 2.4 miles east of Kanjenjie station sign on Roebourne highway.

Large stream crossing where collected - must be on map - ~~B~~ cant find on Hamersley Regional Sheet.

getting dark - must go on. Still raining.

Roll II 16
Begins Bogor Botanical garden, Java

#17

18

19 Hong Kong ?

20 Hong Kong ? — Hawaii ?

21 Los Angeles to east — incl. Coastal Range — Colo. Plat. Rocky Mtns

22 — Rocky Mtns Front — to Carlisle

Roll 12 Singapore June 18
New camera

Roll 13 - Plane flight from Singapore ~~starts~~ at airport — some scenes (poor) from plane). Ends in Djakarta - unfortunately cloudy weather + no sun since I arrived.

Roll #14 Djakarta - begins with views from hotel verandah + ends at some point during rickshaw ride through city - scenes of Sukarnos "pripos" monument + the Djakarta Fair grounds.

Roll #15 Begins June 19 on rickshaw ride in Djakarta. Ends June 20 in Bogor Botanical Garden with scenes of Sukarnos exile "palace" Picture of latter taken through the top of the barb wired fence.

#9 June 5 - Begins at abandoned asbestos mine (Victoria ?). Scenes en route Wittenoom to intersection to road to Yampire Gorge - Hamersley Range north flank - Wittenoom dolomite with overlying Brockman Iron Form. Spinifex covered hills - strange color Scenes coming down Yampire Gorge - also the giant ant hills on way up gorge. Sunset on road to Wittenoom Ends at cross of tracks to Mulga Downs + Cowra - 12 noon June 6

#10 June 7 -
Begins on way to Treeadell locality on Wittenoom → Pt. Hedland Rd. Ends at old abandoned mine on road up Yampire Gorge June 7

#11 June 7. Friday.
Begins on road up Yampire Gorge late afternoon. Ends looking back south to Hamersley Range on Sunday noon June 9th.
Lost in Flood June 9

up Yampire Gorge & near sunset Cut hills - fuzzy! Ends June 5 looking into sunset or road to Wittenoom.

35 mm
Roll # 5 - June 6, '68

Ends with camp fire at Joffre Falls - June 8. Pictures of Fortescue group Contact with Archean saprolite - scenes on road back to Wittenoom. Scenes on road up Yampire gorge - to campsite.

Roll # 6. - June 8

Begins at Joffre Falls campsite. (This reel lost in the flood June 9)

Roll # 7

Begins Singapore June 18 Harbor + street scenes.
Some probably w/ flash pictures Bogor Botanical garden. Ends with Sukarno's "palace"

Roll # 8

Begins

Movies

Film Record

#5 — May 26. Begins Sydney Bot. Garden. Street scenes from Hotel Window —

#6 — May 28 Begins ~~street~~ scenes Sydney — ends ~~street~~ scenes in Perth. June 1
(No pictures neither 35 mm or cine taken between Sydney + Perth

#7 June 1. Perth W.A.
Finished June 3 ~~on~~ plane from Perth to Roebourne — scenes from air between Onslow and Roebourne

#8 Begins June 3 approaching Roebourne — Roebourne airport + pan from Hotel Victoria balcony late afternoon.
Ends at abandoned asbestos mine (Victoria? — not the Colonial — Colonial mine appears near end 3 reels also — closed down 18 mo. ago

35 MM Color

Film record goes from left to right in this book

35 mm **Roll # 1**

Frame 1 –

May 17-18 Ends on plane

Roll 2 – (some pictures lost)

May 19 Begins on plane enroute to Bora Bora

May 20 Ends the evening of the beach banquet at Bora Bora – last picture is flash – of mooru on pillow

May 21 **Roll # 3.** – Loaded OK

First pictures at Bora Bora

Close up of Matoai grounds

Hibiscus flowers May 22

Hotel Intercontinental grounds

and Bora Bora Nature

Some flash pictures at Hotel Intercontinental

Finished at Python Pool on way to Wittenoom 6/4/65

Roll # 4 Various en route to Wittenoom

9 is exposure at collecting locality 2 (A-68-2) Acacia

MOVIES

Film Record – goes from right to left in this book

8 mm 5/16-19 #1. First pictures taken approaching Mexico city (UV filter + x4 neutral. Later approaching Acapulco with cloud pictures betw. Mex. C. + Acapulco. Ground of Villa Vera

8mm 5/19 to 5/20 #2: Plane to Bora Bora. Last frames of octopus in Bora Bora lagoon

8mm #3 Starts at Bora Bora ends Pago Pago – (last six feet not exposed because of change to Peratz roll)

May 23 #4. Starts with Matson Line cruise ship leaving harbor of Pango Pango. Flight over Viti Levu, Fiji and landing at Nandi Ends in Sydney Botanic Garden late afternoon? May 26

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